

## **INTRINSICALLY SAFE SENSOR SIGNAL PROCESSING CIRCUIT**

### **Abstract**

Disclosed is an intrinsically safe sensor signal processing circuit, permitting lower cost installation and eliminating potential hazard. In the combination of a sensor which measures physical value as process variables in hazardous environment and a safety barrier which is mounted in non-hazardous environment, an intrinsically safe sensor signal processing circuit features said safety barrier for ease of mounting, wherein current limiting resistances are connected in series with a sensor and these resistances are also connected to either an output or an inverting input of OP Amps that are considered as a driver or a feeder of a sensor signal. And/or said safety barrier can adopt blocking capacitors instead of said current limiting resistors.